

### Abstract of the Disclosure

The process and apparatus of the present invention provides an anoxic pretreatment tank, a granular fixed film denitrification reactor and a membrane bioreactor. Raw waste flows into the anoxic pretreatment tank, through a denitrification filter and then to a membrane bioreactor for nitrification and micro filtering. Contents of the membrane bioreactor are periodically recycled to the anoxic tank and the denitrification filter for BOD reduction, denitrification and coarse filtration.